



1081-12.0016 Porcine Sequence Listings (8-23-05 version).ST25.txt  
SEQUENCE LISTING

<110> PURINA MILLS, LLC  
PURDUE RESEARCH FOUNDATION

<120> PORCINE LEPTIN PROTEIN, ANTISENSE, AND ANTIBODY

<130> LL31.12-0016

<140> U.S. PATENT APPLICATION NO. 09/932,888  
<141> 2001-08-20

<150> U.S. Patent Application No. 08/692,922  
<151> 1996-07-31

<160> 9

<170> PatentIn version 3.3

<210> 1  
<211> 5917  
<212> DNA  
<213> Sus scrofa

<220>  
<221> gene  
<222> (1)..(5917)  
<223> Nucleotide sequence of the porcine leptin gene. CDS Location:  
join (942..1085,3400..3753)

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<221> misc\_feature  
<222> (2943)..(2944)  
<223> n is a, c, g, or t

<220>  
<221> misc\_feature  
<222> (2983)..(2983)  
<223> n is a, c, g, or t

<220>  
<221> misc\_feature  
<222> (3037)..(3037)  
<223> n is a, c, g, or t

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tgtcttctt gcagagctct tcctcacggc atcgggacgg cggttcacc ttttgcctct 180  
ccggataaac tgtaagctac ttgagagcag agaacatcca ttgttcgctg tggcatccgt 240  
ggtacctagc acggcatctg acatattatc agatcttcca caaaggccag tttacgggtg 300  
aatgcccgtt gaattcaggc tcccagtggg agagcgagga agtaataaag ccggtgataa 360  
atgccgccgt ggagacacca gcgggctgcc gtgagactaa tggagaggac agtaacgtta 420  
tctctaattg cagggtgggt atagagtaca tttcataaca cctttaaaag cttttcacac 480  
gcattatcca atttgatcct cataaaagcc tggagatgtg tatattgtgg tggatggagg 540  
gggagtcttt agcagttatg ygatatgcct gaagtcgtgc agctagtaaa tggctggatt 600  
caaaccagac ctcaaaagcc tgcctgtttg ctcatgcccc ctgccccgac tggccactct 660  
gtggcccaca gcacaactca ccgtcgtctt cttgatccgt tttcttgatc cggctgtgct 720  
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gaggccatag cacatgccgt aacgcgacag ctctttgat ctgcatttga ggctgtggct 840  
ggtaacgggc gtggggaggg ggcgttcgct gagacccag ggacacgcca tgtgtggttc 900  
cctctgtttc caggccccag aagcacatcc cggaaaggaa aatgcgctgt ggaccctgt 960

gccgattcct gctggctttg gcctatctgt cctacgttga agccgtgccc atctggagag 1020

tccaggatga cacraaaacc ctcatacaaga cgattgtcac caggatcagt gacatttcac 1080

acatggtagg gaaggcctgg gagacaaggt cgaacctgtg gccagcccs ggggaggagg 1140

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cacgtctccg gaatgttcta atctgtagga attcttctg gtgacagctg aactctgacc 1440

ctgaggacgc cccttactgc tagtctgccc cattgagcct ttttctctat acaaccctct 1500

acatgtttgc aaacttctct caatgtcccc aggggttttt ctctggggtc cgcaggccga 1560

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ctagacttag agtcgccact ctttccattc ttctgtcac agtcaaagtc ataggtcagg 2100

ggttaattcc caccttcaca gaaatcaaat gtcctttcaa tagttaatct tccaataagc 2160

aaggcctgct tgtcttgatt agtttttaca aatcttaaac catggccatt aatcaggga 2220

gagatcgaag cccatgttcc cacactaact gcctgaatta ttagtctgcc tcaggactat 2280

cttaatagtc ttcgcaagggt tgttttgaga ttaaattaga taggagttcc tgtcgaggcg 2340

cgacggaaac agatccgact cagaaccatg agacagggtc gatccctggc tttgtcagt 2400

ggttaggatc tgggtgctgt gtgagctgtg gtgtagggtcg cagagggtgc tcggatccc 2460

cgttgctgtg gctgtggtgt aggccggtgc agacagctcc gattagacct ctacgtggg 2520

aacctccatg tgccgcgggt accgctaaaa aaagacaaaa gatggaaaaa aaaaaggtta 2580

cattagataa agcaagtgc tcctccacca ccacacatat ccctgcagaa ccaggacaga 2640

gcatgccttc ttgaaaagtt ttcggtgtgt gctttgatag caccagcct taaaagccag 2700

cttttcaatc tgcccagagc agtctggaga cttccgcac tcctggccac tctgagtttc 2760

taacagtggc cttggcgagc ctgggagcag tccggtggcc agaagcaggg acagctgaga 2820

accagataga gtcttgccac tttcaagaga aaaccttaag tctcttctt ccagccatgc 2880

aacagctgcg catgacagat ccagcgtgtc ccagcctgtg tgggtgcaggg agtgaygctg 2940

cgnyagggy gygggggagc tgaggagcga ggcggggcat cngggggctg cagcctccat 3000

ccctaagtgg ggagacttca tgaagagcct gaccagnagg gaggggcatg tgtggaggac 3060

ctcaggcct ggggaaggct agacccaact atgtgagaaa cagacagtcg tggctggttc 3120

tacagaagag gcatctggag gccattcgaa tgcccaaagc tgtctgggtg aggcagggtc 3180

tgctaggcag aagacagaag gccgtgagac cagcttgag gcttggcagc cagccagcc 3240

caaggagttc gggcctagat aggattgtgt ggaaggggaa gaggcagccg gaggtggggg 3300

gtgggggttg acccgtctcc acgcctgcag gaaggccagg ggctgcagag ccaacatctc 3360

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|            |             |            |             |            |             |      |
|------------|-------------|------------|-------------|------------|-------------|------|
| tctcgtgag  | cgtctcgtc   | tccccctct  | cctgcacagc  | agtctgtctc | ctccaaacag  | 3420 |
| agggtcaccg | gtttggactt  | catccctggg | ctccatcctg  | tcctgagttt | gtccaagatg  | 3480 |
| gaccagacc  | tggcgatcta  | ccaacagatc | ctcaccagtc  | tgccttcag  | aaatgtgatc  | 3540 |
| caaatatcga | atgacctgga  | gaacctccgg | gacctctctc  | acctgctggc | ctcctccaag  | 3600 |
| agctgcccct | tgccagcag   | ggccctggag | accttgagga  | gcctgggagg | cgtcctggaa  | 3660 |
| gcctccctct | actccacgga  | ggtggtggcc | ctgagcaggc  | tgcagggggc | tctgcaggac  | 3720 |
| atgtgcggc  | agctggacct  | cagccctggc | tgtgaagcc   | ttgaaggcct | ctctccccac  | 3780 |
| agtcggggga | agaaacctga  | gcttcaggga | gtctgtgga   | gaagagagcc | tgtgcggacc  | 3840 |
| tcctctctgc | aggtctgcgg  | accatttctc | tctcgtctcg  | ctaagctgct | cttccaaagg  | 3900 |
| cagaaaactc | caaggcacga  | caccaaagac | agaaaggcct  | ggttccgcgc | ccaccgaaa   | 3960 |
| gggggagcgg | tccagccaac  | ggtggactag | atttcggatt  | ttccaccaac | gtcttccttc  | 4020 |
| ctgttccatc | tccagctcac  | cgcgtgcttc | agcgtgaccg  | gggggatttc | agagcctttc  | 4080 |
| gaccatcaag | cagggttcca  | tctgagaatt | ccggggagca  | cggatgaagg | tacaggcaca  | 4140 |
| cacagctgga | tgtctccacg  | caacacaagt | tgaagcatt   | tctttattta | ttatgcggtg  | 4200 |
| tattctggtt | ggatttgaag  | caaaacacca | gcctttccag  | gctctctggg | gtcagccggg  | 4260 |
| gctaggggga | ggctcccag   | gtgctgtttc | cagtaccatc  | catgggcctg | ctgaggggaa  | 4320 |
| cccattttga | gtgacttgag  | ggctctcaag | gtcgttctct  | agagactggc | tttgtttcta  | 4380 |
| ctgtgactga | ctttaaaact  | gcagcgtgtg | cactggcatc  | gcctgcgcgg | atctcgaagg  | 4440 |
| gccaggttct | cttagaaaaga | agaagatgaa | ctttgtcagg  | ggtgtgtacg | cggagacagg  | 4500 |
| aagtgtgttg | gtgggagggg  | catggatcca | gaatgtgtat  | ttcttgtgtg | atggacattt  | 4560 |
| gtgtgagggg | ctctctggac  | agggtagagt | cattgtctca  | tcttcgtggt | tttcatgaga  | 4620 |
| gaaggagatg | attccttcac  | gggggtcgtg | gggttttgcc  | agccggccgt | gcaggagtgg  | 4680 |
| ggaaggggct | gaagccgaag  | accgttgggg | gccgtggtga  | gctctgcctt | ctccagctgc  | 4740 |
| tagaggctgg | tctttctcat  | caggagtgga | gggtctcgcg  | ttggagacag | tgatccccag  | 4800 |
| ggcgggatcc | ttgcctggc   | cctctgaatg | gtctgggtga  | tcccacactg | atgtcataac  | 4860 |
| aggaagtgc  | cctggtttgg  | gatttgtatg | ctcaccctaa  | gcaagggcct | gcttcccatc  | 4920 |
| cattttggga | aggatttttt  | ctccaggggg | agggtgaaag  | ctctgggagg | tctgtgggct  | 4980 |
| tacgagatgg | tccaagtcct  | gggtcagtga | gtcccgggac  | tcgtgaccgc | ctcagaggagc | 5040 |
| ccccctctcc | ctacaggtca  | tgttcaatag | gtcaaaacag  | gaggcatggg | tttccaccat  | 5100 |
| cctgccgctg | tgatgcagcc  | atcgactac  | aggaggtaga  | tctgtccaag | gaaatttgaa  | 5160 |
| tctcaagcaa | tcactttcaa  | gactgagcat | ctattgtgct  | cagccccaac | tggtgctatg  | 5220 |
| ggctcagaga | agctcatcaa  | ataaatatta | aaatccagtc  | ctgccttcag | gaccttgcat  | 5280 |
| tccagatgat | aacacctccc  | ccacaccccg | tctgcagagg  | ctgtcatttc | accatgggaa  | 5340 |
| ccgagcagct | gaaacacagt  | gcggctctca | gcaggtggaa  | aggctgagct | gaggagggca  | 5400 |
| gtgcccgggc | ccacaggcta  | accctgcttg | cacttggtag  | catttttact | gttcggggcg  | 5460 |
| catcagcatc | tattactgag  | aagccgcatc | cctttgaagc  | aggatagctg | agactataaa  | 5520 |
| aataagaaaa | taccagagtt  | cccttggtgg | acagagggct  | aaggatccag | tgttggtgct  | 5580 |
| gcagcagctt | gggtcacggc  | tgtggcaagg | gttcgatccc  | tggcctggga | actttcacat  | 5640 |
| gttgaggcca | aggccaaaaa  | aaaataaata | aataaaaaata | aacaaaaaaa | aacaagacca  | 5700 |

taacagcaga ctggtggcaa accaggacta gaacctgggt cctctgacct ctgagtcag 5760  
 tgtccccctga gccagctagt gttctctggg gacgggaaca gggttgggca gggagttcag 5820  
 gaagtgtttg ctggaagagc ggagtttcca ggctgatttt gcaggaggtg agggaagtgg 5880  
 attgcctgga gggaggaggc tgttttgttt gaagctt 5917

<210> 2  
 <211> 501  
 <212> DNA  
 <213> Sus scrofa

<220>  
 <221> misc\_feature  
 <222> (1)..(501)  
 <223> Nucleotide sequence of the entire coding region of porcine leptin  
 (i.e. signal peptide and secreted protein)

<400> 2  
 atgcgctgtg gaccctgtg ccgattcctg ctggctttgg cctatctgtc ctacgttgaa 60  
 gccgtgcca tctggagagt ccaggatgac accaaaacct tcataagac gattgtcacc 120  
 aggatcagt acatttcaca catgcagtct gtctcctcca aacagagggt caccggtttg 180  
 gacttcattc ctgggctcca tcctgtcctg agtttgtcca agatggacca gaccctggcg 240  
 atctaccaac agatcctcac cagtctgcct tccagaaatg tgatccaaat atcgaatgac 300  
 ctggagaacc tccgggacct tctccacctg ctggcctcct ccaagagctg ccccttgccc 360  
 agcagggccc tggagacctt ggagagcctg ggcggcgtcc tggagcctc cctctactcc 420  
 acggaggtgg tggccctgag caggctgcag ggggctctgc aggacatgct gcggcagctg 480  
 gacctcagcc ctggctgctg a 501

<210> 3  
 <211> 166  
 <212> PRT  
 <213> Sus scrofa

<220>  
 <221> Protein  
 <222> (1)..(166)  
 <223> Amino acid translation of the entire coding region of porcine  
 leptin (i.e. signal peptide and secreted protein)

<400> 3  
 Met Arg Cys Gly Pro Leu Cys Arg Phe Leu Leu Ala Leu Ala Tyr Leu  
 1 5 10 15  
 Ser Tyr Val Glu Ala Val Pro Ile Trp Arg Val Gln Asp Asp Thr Lys  
 20 25 30  
 Thr Leu Ile Lys Thr Ile Val Thr Arg Ile Ser Asp Ile Ser His Met  
 35 40 45  
 Gln Ser Val Ser Ser Lys Gln Arg Val Thr Gly Leu Asp Phe Ile Pro  
 50 55 60  
 Gly Leu His Pro Val Leu Ser Leu Ser Lys Met Asp Gln Thr Leu Ala  
 65 70 75 80  
 Ile Tyr Gln Gln Ile Leu Thr Ser Leu Pro Ser Arg Asn Val Ile Gln  
 85 90 95

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 Ile Ser Asn Asp Leu Glu Asn Leu Arg Asp Leu Leu His Leu Leu Ala  
 100 105 110

Ser Ser Lys Ser Cys Pro Leu Pro Ser Arg Ala Leu Glu Thr Leu Glu  
 115 120 125

Ser Leu Gly Gly Val Leu Glu Ala Ser Leu Tyr Ser Thr Glu Val Val  
 130 135 140

Ala Leu Ser Arg Leu Gln Gly Ala Leu Gln Asp Met Leu Arg Gln Leu  
 145 150 155 160

Asp Leu Ser Pro Gly Cys  
 165

<210> 4  
 <211> 435  
 <212> DNA  
 <213> Sus scrofa

<220>  
 <221> misc\_feature  
 <222> (1)..(435)  
 <223> Nucleotide sequence of the coding region of porcine leptin  
 corresponding to the secreted porcine leptin protein

<400> 4  
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 ttcatccctg ggctccatcc tgtcctgagt ttgtccaaga tggaccagac cctggcgatc 180  
 taccaacaga tcctcaccag tctgccttcc agaaatgtga tccaaatadc gaatgacctg 240  
 gagaacctcc gggaccttct ccacctgctg gcctcctcca agagctgccc cttgcccagc 300  
 agggccctgg agaccttggg gagcctgggg ggcgtcctgg aagcctccct ctactccacg 360  
 gaggtggtgg ccttgagcag gctgcagggg gctctgcagg acatgctgcg gcacgtggac 420  
 ctcagccctg gctgc 435

<210> 5  
 <211> 145  
 <212> PRT  
 <213> Sus scrofa

<220>  
 <221> Protein  
 <222> (1)..(145)  
 <223> Amino acid translation of porcine leptin cDNA corresponding to  
 the secreted porcine leptin protein

<400> 5

Val Pro Ile Trp Arg Val Gln Asp Asp Thr Lys Thr Leu Ile Lys Thr  
 1 5 10 15

Ile Val Thr Arg Ile Ser Asp Ile Ser His Met Gln Ser Val Ser Ser  
 20 25 30

Lys Gln Arg Val Thr Gly Leu Asp Phe Ile Pro Gly Leu His Pro Val  
 35 40 45

Leu Ser Leu Ser Lys Met Asp Gln Thr Leu Ala Ile Tyr Gln Gln Ile  
 50 55 60

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Leu Thr Ser Leu Pro Ser Arg Asn Val Ile Gln Ile Ser Asn Asp Leu  
65 70 75 80

Glu Asn Leu Arg Asp Leu Leu His Leu Leu Ala Ser Ser Lys Ser Cys  
85 90 95

Pro Leu Pro Ser Arg Ala Leu Glu Thr Leu Glu Ser Leu Gly Gly Val  
100 105 110

Leu Glu Ala Ser Leu Tyr Ser Thr Glu Val Val Ala Leu Ser Arg Leu  
115 120 125

Gln Gly Ala Leu Gln Asp Met Leu Arg His Val Asp Leu Ser Pro Gly  
130 135 140

Cys  
145

<210> 6  
<211> 504  
<212> DNA  
<213> Homo sapiens

<220>  
<221> DNA  
<222> (1)..(504)  
<223> Nucleotide sequence of human leptin protein

<400> 6  
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aggatcaatg acatttcaca cacgcagtca gtctcctcca aacagaaagt caccgggttg 180  
gacttcattc ctggggtcca cccatcctg accttatcca agatggacca gacctggca 240  
gtctaccaac agatcctcac cagtatgcct tccagaaacg tgatccaaat atccaacgac 300  
ctggagaacc tccgggatct tcttcacgtg ctggccttct ctaagagctg ccacttgccc 360  
tgggccagtg gcctggagac cttggacagc ctgggggggtg tcctggaagc ttcaggctac 420  
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ctggacctca gccctgggtg ctga 504

<210> 7  
<211> 504  
<212> DNA  
<213> Artificial

<220>  
<223> Murine Leptin

<220>  
<221> DNA  
<222> (1)..(504)  
<223> Nucleotide sequence of murine leptin protein

<400> 7  
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gcagtgccta tccagaaagt ccaggatgac accaaaaccc tcataagac cattgtcacc 120  
aggatcaatg acatttcaca cacgcagtgc gtatccgcca agcagagggt cactgggttg 180  
gacttcattc ctggggtcca cccattctg agtttgtcca agatggacca gactctggca 240

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gtctatccac aggtcctcac cagcctgcct tcccaaatg tgctgcagat agccaatgac 300  
 ctggagaatc tccgagacct cctccatctg ctggccttct ccaagagctg ctccctgcct 360  
 cagaccagtg gcctgcagaa gccagagagc ctggatggcg tcctggaagc ctactctac 420  
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 ttggatgtta gccctgaatg ctga 504

<210> 8  
 <211> 36  
 <212> DNA  
 <213> Artificial

<220>  
 <223> Primer

<400> 8  
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<210> 9  
 <211> 30  
 <212> DNA  
 <213> Artificial

<220>  
 <223> Primer

<400> 9  
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